Wireless

Wireless
LAN

LAN

OVATION™

3G / UMTS WLAN LAN Gateway

powered by

CONVERSA™

ovation

UMTS WLAN LAN - Gateway

UMTS   LAN   WLAN
ONLINE ONLINE ONLINE

08:00

NOVATEL WIRELESS

User Manual

NOVATEL WIRELESS

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Welcome

Within minutes, all of the computers in your home can be sharing a wireless connection to the Internet through the 3G/UMTS mobile network.

Tip: To achieve the best possible reception, check the signal strength (the more bars the better the reception) on the LCD on your Ovation. You may find that placing your Ovation near a window provides the best reception.

Simple setup

Your Ovation is designed to provide you with a quick and trouble-free installation. You can install, set up, and be connected to the Internet in just a few short steps. The web-based interface lets you set up your Ovation from almost any personal computer, including Windows, Macintosh, or Linux, using an Internet browser (e.g. Internet Explorer 6.0 or Netscape 6.2). Once you are set up, you can review and enable customized wireless security settings.

Instant protection

Your Ovation supports Network Address Translation (NAT). This network service hides the computers in your network so they can't be found or directly accessed by anyone outside of your network. Also included is a true firewall that blocks all incoming traffic and allows all outgoing traffic by default.

Additional security

Disabled by default, your Ovation supports both Wired Equivalent Protection (WEP) and Wi-Fi Protected Access (WPA-PSK) to protect your network data. Parents can set up content filtering to monitor or restrict Internet access. Security logs keep you aware of potential security risks and attempted access. You can view logs online.

Stay in touch

You can use your Ovation to send and receive SMS text messages. The LCD on the front of the device lets you know when you have new messages.

Important note

To protect your network from unauthorized access, and to make it more difficult for hackers to analyze your data, please check the WLAN security settings and enable either WEP or WPA-PSK encryption on your Ovation.

LCD display

1 **UMTS**
Online when you are connected to the 3G/UMTS mobile network. Offline when you are not connected to the 3G/UMTS mobile network.

2 **LAN**
Online when a computer is turned on and connected with an Ethernet cable. 10 (Mbps) or 100 (Mbps) indicates the connection speed.

3 **WLAN**
Online when the WLAN module is enabled.

4 **UMTS signal indicator**
Six bars represents the strongest signal. The stronger the signal, the better your 3G/UMTS mobile network connection.

5 **Clock**
Displays the current time in hours and minutes.

6 **SMS**
An envelope symbol appears when you receive an SMS text message.

7 **LCD lighting**
Press this button to turn the LCD backlight on or off.

Side panel

1 **UMTS on/off**
Press this button to connect or disconnect from the 3G/UMTS
mobile network.

2 **LAN**
To connect your Ovation to a computer using an Ethernet cable.

3 **Reset**
Press this button to reboot or reset your Ovation.

4 **SIM card slot**
To insert or remove the SIM card, carefully press the yellow eject button
with a pointed object.

5 **Power connection**
To turn your Ovation on, plug the power adapter into this connection.

Note: You should leave your Ovation turned on at all times to provide a
faster connection. Leaving the power on is not the same as staying
connected to the 3G/UMTS mobile network. You are only connected when
the UMTS indicator on the LCD displays ONLINE.

Wall mounting

You can mount your Ovation on a wall or other vertical surface. If the wall is drywall, use two hollow wall-anchors to secure the screws. Make sure you mount your Ovation vertically so that the LCD is facing upward.

- Remove your Ovation from the stand.

- Use the mounting template to mark the holes.

- Secure the screws in the wall.

- Hang your Ovation on the screws.
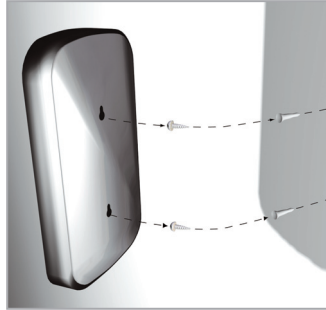
Safety guidelines

Your Ovation is a sensitive electronic device. It is based on the same principles as cell phones and other wireless devices. To use your device securely and efficiently, please follow the following guidelines:

• Always handle it carefully and store it in a clean and dust-free place.

• Do not expose it to liquid, moisture, or humidity.

• Do not expose it to extreme temperatures, either high or low.

• Do not expose it to open flames or lit tobacco products.

• Do not drop, throw, or try to bend it.

• Do not paint or place stickers on it.

• Do not use it near medical equipment without prior permission.

• Do not use it in areas that display the posting "turn off two-way radio".

• Do not use it in areas with a potentially explosive atmosphere.

• Do not take it apart.

Installation

Encryption is disabled by default on your Ovation and should be set up as the final step in your installation. See page 37 for step-by-step instructions. To ensure the highest level of protection, you should complete your initial setup using a LAN connection.

Step 1: Insert the SIM card

You must insert the SIM card before you can access the Internet. Please insert the SIM before you connect the power adapter. Take care not to touch or damage the contact points on the SIM card. Use the notch in the tray as a guide to properly insert the SIM card.

Important: If you need to remove or replace your SIM card, make sure you are disconnected from the Internet and that the power adapter is unplugged.

• Push the eject button using a pointed object, such as a pen or pencil, and then remove the SIM tray from the card slot.

• Align the orientation notch on the SIM card with the orientation notch on the tray.

• Insert the SIM card into the tray.

• Reinsert the SIM tray into the card slot.

Step 2: Connect the power

Only use the power adapter you received with your Ovation. Using a different power adapter could cause damage. After you connect the power, a startup process begins. This process takes about 60 to 90 seconds. Please wait until you see the message "Enter PIN Code" on the LCD before proceeding to Step 3.

If you see the message "SIM Failure" or "Insert SIM" on the LCD, then the SIM card is defective, was inserted incorrectly, or was not inserted at all. Unplug the power adapter and check the SIM card.

• Plug the power adapter into your Ovation.

• Plug the power adapter into an outlet.

Step 3: Connect your computer

You can connect your computer to your Ovation using either a WLAN (wireless) connection or a LAN cable.

Wireless connection

Your computer must support IEEE 802.11 b/g to set up a wireless connection. If your computer does not support this, you can upgrade your computer with a WLAN adapter or WLAN PC card.

The following instructions show you how to connect your computer to your Ovation using Windows XP (SP2). If you are using another operating system, refer to the manufacturer's documentation.

- Turn on your computer.

- Enable the WLAN adapter.

- Choose **Start-Control Panel** and then select **Network Connections**.

- Select **ovation** (default SSID name) and click **Connect** .

  The first time you connect, wait about 60 seconds until the wireless connection is established. The message "Connected" will display on your computer.

  Your computer should automatically connect to your Ovation during future sessions.

Installation

LAN connection

Your Ovation box contains a LAN cable (Ethernet cable). Use this cable to establish a LAN connection between your computer and your Ovation.

• Connect your computer to
  your Ovation using
  the LAN cable.

Step 5: Connect to the Internet

Your final step is to connect to the Internet. You will need the PIN code that came with your Ovation.

- Open your
  Internet browser.

- If your proxy server is
  enabled, please disable it.

  For Internet Explorer 6.0
  (SP2), choose **Tools** and
  then **Internet Options**.

  Select the **Connections** tab
  and click **Settings**.

  Disable the proxy server and
  automatic script search.

- Make sure that JavaScript is
  enabled.

- If you are using pop-up
  blocking software, please
  disable it.

  For Internet Explorer 6.0
  (SP2) choose **Tools** and then
  Pop-Up Blocker. Select
  Turn Off Pop-up Blocker.

- Type **http://192.168.0.1**
  in the browser address bar
  and press Enter.

13
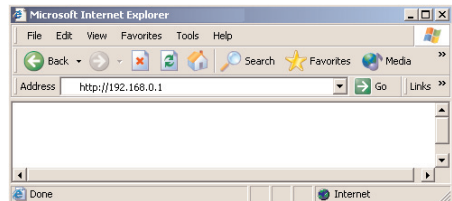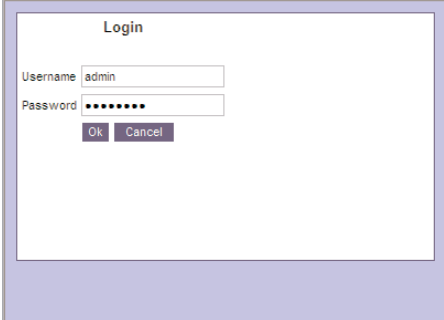
Installation

- Enter your user name in the **Username** box. The default user name is **admin**.

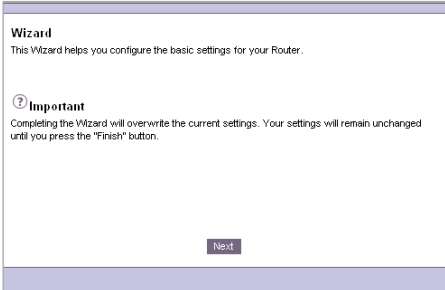- Enter your password in the **Password** box. The default password is **password**.

  Note: Note that the user name and password are case sensitive. For example: ADMIN is not the same as admin.
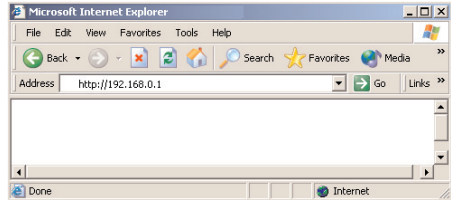
- Click **OK**.

- The first time you use your Ovation, the Setup Wizard will appear. Follow the four installation steps by clicking **Next** and at the end **Finish**.
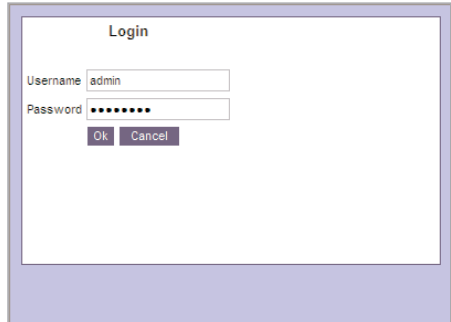
- Your Ovation will now restart.

- Open your
  Internet browser.

- Type **http://192.168.0.1**
  in the browser address bar
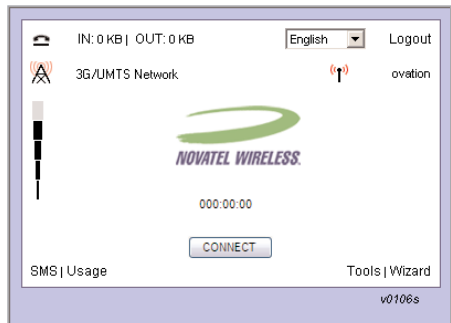 and press Enter.

- Enter your user name in
  the **Username** box. The
  default user name is **admin**.

- Enter your password in
  the **Password** box. The
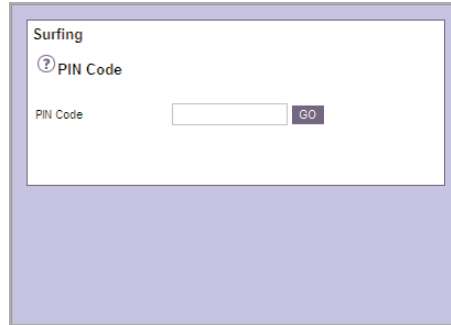 default password is
  password.

  Note: Note that the user
  name and password are
  case sensitive. For example:
  ADMIN is not the same as
  admin.

- Click **OK**.

- Click the **Connect** button
  on the Connection
  Manager.

- When the message appears,
  letting you know you are
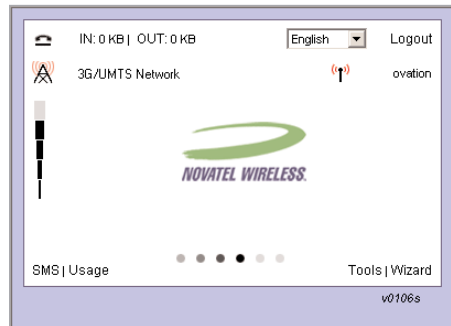 being re-directed to the PIN
  page, click **OK**.

- Type your PIN code in the **PIN Code** box.

- Click **Go**.

- Wait for the connection.

- Once you are connected, you can surf the Internet, access your e-mail, and send and receive SMS text messages.

  Please review the information in the remaining chapters to learn about your Ovation default settings and how you can adjust them.

Internet Settings

You can change or customize your Internet settings. You must open the Tools before you can change these settings.
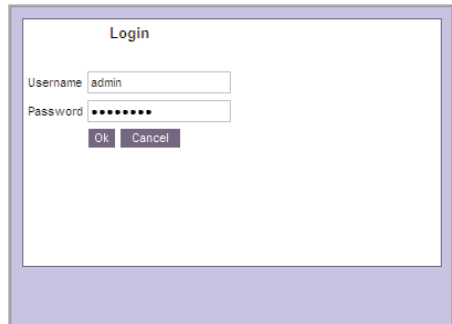
Opening the Tools

Once your Ovation is set up for first time use, you can use the Tools to change your settings.
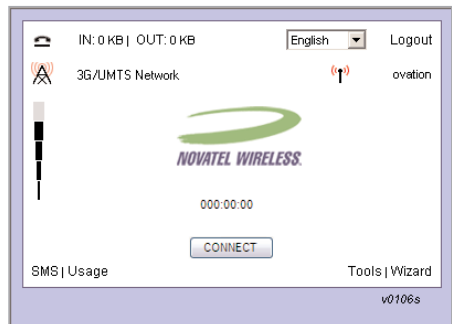
- Enter your user name in the **Username** box. The default user name is **admin**.

- Enter your password in the **Password** box. The default password is **password**.

  Note: Note that the user name and password are case sensitive. For example: ADMIN is not the same as admin.

- Click **OK**.

- Click **Tools** on the Connection Manager.

- You can then adjust your Ovation settings.
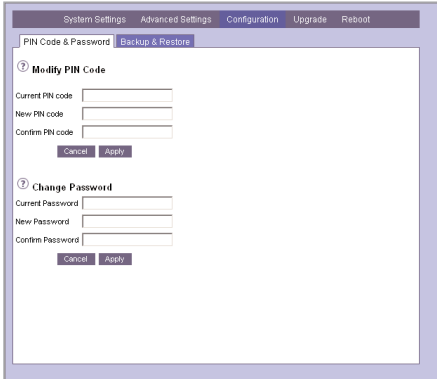
Changing your PIN code

For security reasons, you should change your preset PIN code. The length of your PIN code will vary, depending on your service provider. You cannot change the user name **admin**.

- Click **Configuration**, then **PIN Code & Password**.

- Type your current PIN code in the **Current PIN Code** box.

- Type your new PIN code in the **New PIN Code** box.

- Type your new PIN code again in the **Confirm PIN Code** box.

- Click **Apply**.

Disconnect automatically

Your Ovation was set up at the factory to automatically disconnect from the Internet when your session is inactive for 60 minutes.

Note: The Internet connection will **not** be disconnected if programs on your computer generate data traffic between your Ovation and the Internet in the background.

This is intended for your protection so that no costs are incurred if you accidentally forget to disconnect the 3G/UMTS connection manually after your session. You can change this default setting so that the connection will automatically be interrupted after a period of time defined by you.

- Click **System Settings** then **UMTS Conn**.

- Select the amount of minutes to elapse before disconnecting from the **Idle time before disconnecting** box.

- Click **Apply**.
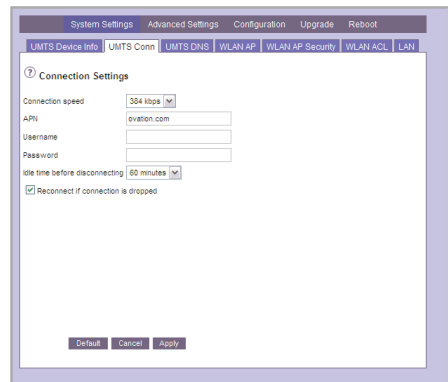
Reconnect automatically

Enable automatic reconnect to minimize Internet connection disruptions. If your Ovation automatically disconnects from the Internet - either because you set up an automatic disconnect or your network dropped your connection - your Ovation will automatically attempt to re-establish your Internet connection when your Internet activity resumes.

- Click **System Settings** then **UMTS Conn**.

- Check the **Reconnect if connection is dropped box**.

- Click **Apply**.
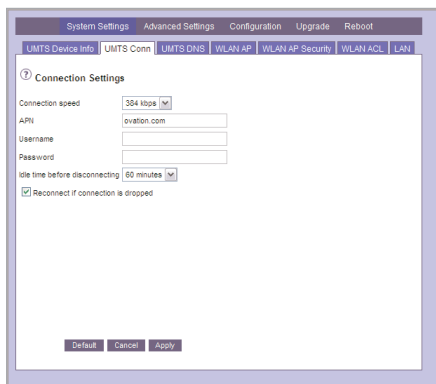
Monitor usage

To monitor the duration of your connection you can view your connection statistics throughout the month. Please note that the usage information shown on your device may be different from that shown on your bill.

- Click **Usage** on the Connection Manager window.
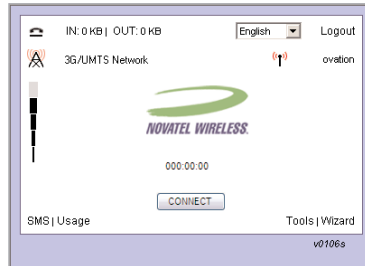
- To refresh the statistics click **Update**.
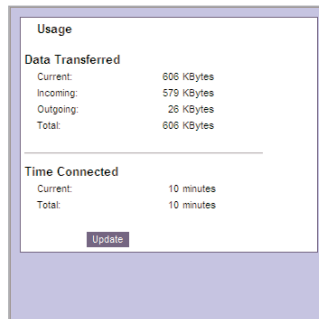
Disconnect from the Internet

There are two methods you can use to disconnect from the Internet. Maximize or enable the Connection Manager window and click **Disconnect**, or press the **UMTS on/off** button on the side of your Ovation.

The UMTS indicator on the LCD shows **UMTS OFFLINE** when your Ovation is disconnected from the Internet.

Connection Status window

• Click **Disconnect** on the Connection Manager window.
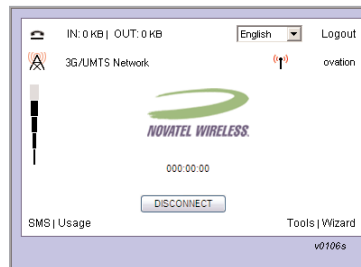
UMTS on/off

• Press the **UMTS on/off** button on the side of your Ovation.

Adjust the time

The LCD on your Ovation displays the current time. By default, the time is set up to synchronize with the time on your computer. You must unselect **Adjust for Daylight Savings Time** and click **Apply** before the time will display on the LCD.

You can change this default and set it manually or synchronize it with the Network Time Protocol (NTP). If you set the time manually, you should disable the Adjust for Daylight Savings Time feature.

- Click **Advanced Settings**, then **Date & Time**.

- Select the required options.

- Click **Apply**.
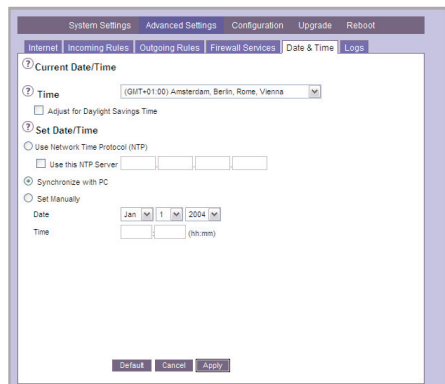
Administration Settings

You can change common administration settings for your Ovation. You must open the Tools before you can change these settings.
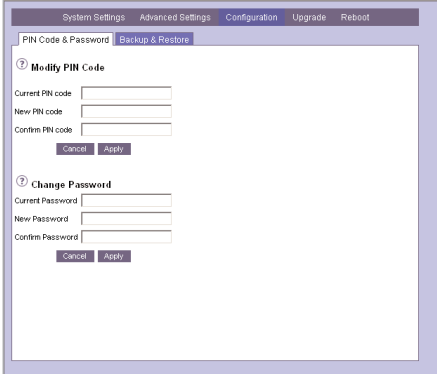
Change your password

The password is your security code for your Ovation. Change the default password to limit access to these settings.

If you change the default password and you can't remember what the new password is, you'll have to reset your Ovation to the default factory settings. This resets the password back to **password**. It also resets all of the other settings - which is why it's a good idea to back up your settings.

For information about creating a backup, see "Back up your settings" in this user guide.

- Click **Configuration** then **PIN Code & Password**.

- Type your existing password in the **Current Password** box.

- Type your new password in the **New Password** and **Confirm New Password** boxes.

- Click **Apply**.

Back up your settings

Create a backup file to save your user specific settings. Use it to restore your settings.

When you create a backup file, the password is saved with the file. When you restore your settings from the backup file you will have to use the password you were using when you created the backup file.

- Click **Configuration** then **Backup & Restore**.

- Click **Backup**.

- If a browser request appears, select **Save on Disk/Hard Drive** and then click **OK**.

- Select a location to save the file and enter a file name in the **File Name** box.

- Click **Save**.
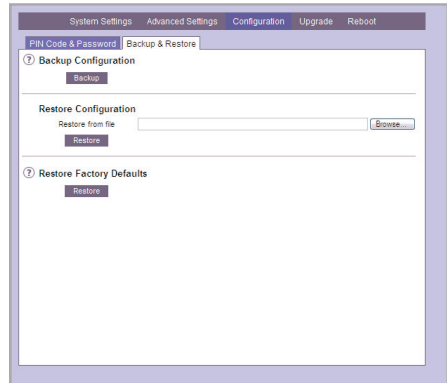
Restore your settings

If you previously created a backup file, you can use the file to restore your Ovation to your custom settings.

- Click **Configuration** then **Backup & Restore**.

- Type either the complete path to the backup file in the **Restore from File** box or click the **Browse** field to find the file.

- Click **Restore**.

- A status message appears. Wait until the restore process is complete.
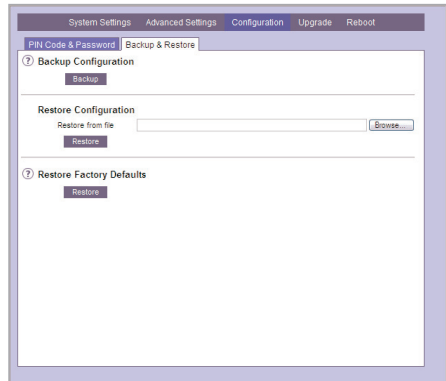
Upgrade the Ovation firmware

Contact your service provider to find out where you can download the most current version of the Ovation firmware.

Before you install a new version of the firmware, you should create a backup file of your settings.

- Open an Internet browser, connect to the Internet, and go to your service providers web site.

- Download the firmware upgrade and save it on your hard drive.

- If necessary, extract the compressed or zipped file.
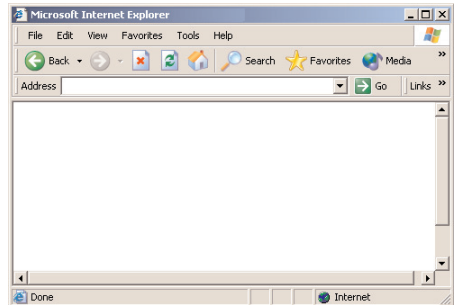
- Click **Upgrade**.

- Enter either a complete path to the upgrade file in the **Upgrade Router** field or click **Browse** to find the downloaded file.

- Click **Upgrade** and wait until the upgrade is complete.

  Note: Do not push buttons or insert or remove cables during the upgrade. Please wait until a message appears, letting you know that the upgrade is complete.

- Clear your browser cache. See page 52 for instructions.
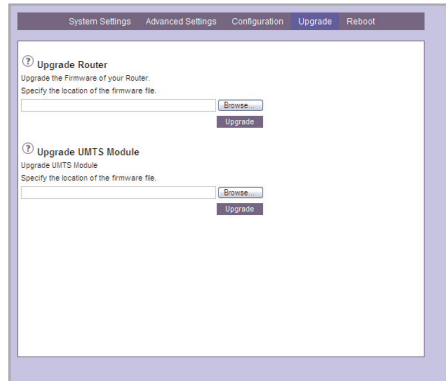
Restore Factory Default Settings

You can restore your Ovation to the factory default settings. This resets the password back to **password**. It also erases all of your custom settings. If you want to restore your custom settings after you reset the device, create a backup file first.

You can reset your Ovation to the factory defaults as follows:

- Unplug the power adapter.

- Then plug the power adapter back in to turn the device back on.

- Wait until the **Welcome** message appears on the LCD and press the Reset button for 30 seconds.

- Then remove the power adapter and then turn the device back on.

    or

- From the Tools, click **Configuration**, then **Backup & Restore**.

- Click **Restore**.

SMS

Your Ovation is equipped to send and receive SMS text messages. This feature may or may not be available, depending on your service provider.

Send messages

You can send SMS text messages from your Ovation. The length of outgoing messages is limited to 160 characters.

- Click **SMS** on the Connection Manager window then **Send SMS**.

- Enter the text and phone number that you want to send the message to.
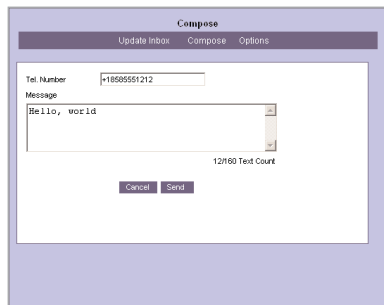
Read messages

You can read SMS text messages on your Ovation. An envelope symbol will appear on the LCD when you receive a new message.

- Click **SMS** on the Connection Manager window then **Inbox**.

- Select the message in the inbox that you want to read.
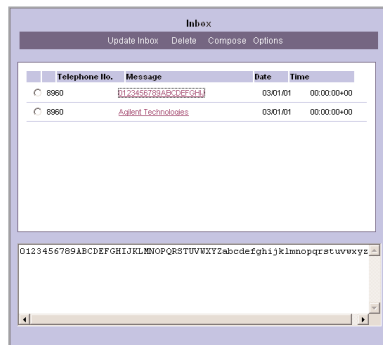
Delete messages

SMS text messages are stored on your SIM card. The number of messages you can store varies, depending on your service provider. When your SIM card memory is full, you will not be able to receive any new messages. You should delete messages after you read them.

- Select the message in the inbox that you want to delete.

- Click **Delete**.
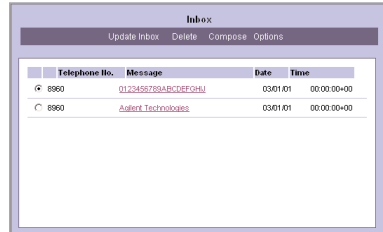
Setup options

To receive SMS messages on your Ovation, you need the number of your SMS Center (SMSC). This number should be set up automatically. If it isn't, you can enter it manually. Please contact your service provider if you are not sure what the number is.

- Click **SMS** on the Connection Manager window then **Settings**.

- Enter the number for your SMS Center in the **SMSC** field.

- Click **Apply**.
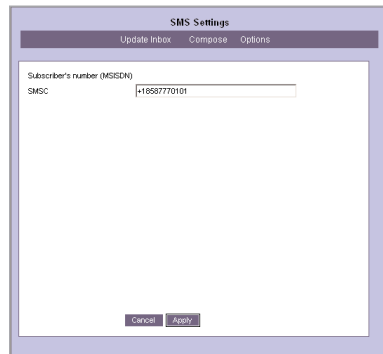
Wireless Security Settings

Review the basics

Simply connecting your computer to your Ovation provides a basic level of protection.

Network Address Translation

Your Ovation supports Network Address Translation (NAT). This network service makes it possible for all of the computers in your network to share a single IP address. This IP address is assigned to your Ovation. It is the only address that is visible to the outside world. The private addresses that DHCP assigns to computers in your network remain private and cannot be reached from the Internet.

Firewall

Your Ovation has a true firewall that uses rules to determine which traffic comes in and which traffic goes out. By default, all traffic is allowed out and no traffic is allowed in. This is the only security setting that is enabled by default.

Determine the exposure

If you live in a rural area far away from your neighbor, the likelihood that someone will break into your wireless network is very low. On the other hand, if you live in a densely populated area in the city next to an office building, there is a potential danger that a third party could connect to your wireless network.

Based on your own security needs, decide which security settings you want to implement. The following table shows you which settings protect your network access and which settings protect your data.

Wireless Security	Network Access	Network Data
Change SSID	Yes	
Restrict access by MAC address	Yes	
Enable WEP Open System encryption	Yes	
Enable WEP Shared System encryption	Yes	Yes
Enable WPA-PSK encryption	Yes	Yes
Disable SSID broadcast	Yes	

Protect your data

Data sent through a wired or wireless network is transmitted as plain text. Anyone able to break into your network can intercept and read the data. Encryption minimizes this security risk because the data is converted into a nonreadable format.

Your Ovation supports Wired Equivalent Protection (WEP) and WiFi Protected Access (WPA-PSK) encryption. Encryption is disabled on your Ovation by default.

Wired Equivalent Protection (WEP)

This type of encryption is based on the RC4 encryption algorithm. The algorithm is generated based on a key that everyone in the network shares to encode and decode data.

The network card in your computer uses the encryption key to encode data that leaves the computer. When the data arrives at your Ovation, the encryption key is used again to decode the data into its original form.

You can set up your Ovation to provide encryption-only protection using open-system mode or you can add authentication using shared-key mode.

You should change the WEP encryption key on a regular basis to maintain the effectiveness of WEP.

Setting up WEP on your Ovation

To set up a WEP encryption code for your network, manually enter a key using the following characters (a number combination between 0 and 9 and letters between a and f). This code is not case sensitive. For example: AA is the same as aa. The encryption code can contain up to 26 characters and may not contain any spaces.

• Click **System Settings** then **WLAN AP Security**.

• Select the type of authentication from the **Authentication** list.

• Select **WEP** as **Encryption**.

• Select the length of the key from the **WEP Encryption** list.

• Enter your **key**
  For example:
  abcdef12345678901234567890.

• Click **Apply** and wait until your Ovation restarts. This startup process takes about 60 seconds.
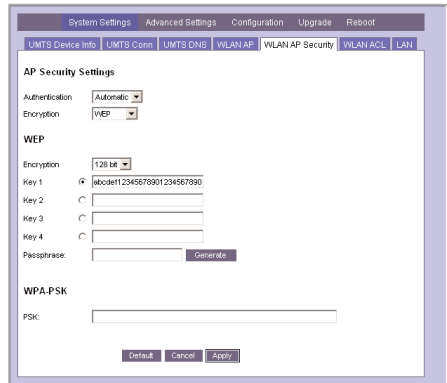
Repeat the "Initial Connection Process" and enter the key when asked. Your Ovation is now secure.

Reconnecting your computer

When you click **Apply** after you set up the WEP encryption, computers with wireless connections to your Ovation will disconnect. It can take 2 to 3 minutes before your Ovation reappears on the list of available wireless networks. As soon as your computer finds your Ovation, you must reconnect manually.

For instructions on how to reestablish the wireless connection between your computer and your Ovation, please refer to the manufacturer's documentation.

WiFi Protected Access (WPA-PSK)

This type of encryption helps protect your network from unauthorized access and eavesdroppers. Like WEP, an encryption key scrambles the data between your computers and your Ovation. Like WEP Shared-Key, computers must authenticate with your Ovation to join the network. This is where the similarities end.

With WEP the encryption key is static – it stays the same until you change it. With WPA-PSK, you enter a single passphrase once on your Ovation and then again on each computer you want to connect to your network. Then the WPA Temporal Key Integrity Protocol (TKIP) takes over.

TKIP mathematically derives encryption keys based on your initial passphrase. Keys are automatically changed, rotated and authenticated among devices in your network. The same key is never used twice. WPA-PSK is sometimes referred to as extra-strength encryption.

What are the drawbacks?

To use WPA-PSK on your network, every device you connect to your network must support WPA. Older devices – those manufactured before August 2003 – might not support this new standard. Check with your manufacturer to see if a software upgrade is available.

Setting up WPA-PSK on your Ovation

Your WPA-PSK passphrase can contain between 8 and 63 characters. It can contain special characters and spaces. Ideally, a passphrase should consist of 20 characters, be a mixture of uppercase and lowercase letters, and contain numbers and punctuation marks.

Since your passphrase provides the starting point for the rekeying process, using a passphrase that is difficult to crack strengthens your network security.

- Click **Setup** then **WLAN Security**.

- Select **WPA-PSK** as **Security System**.

- Enter your passphrase in the **PSK** field.

  Write down your passphrase. You must enter it on every computer that you want to connect to your network.

- Click **Apply**.

- WPA-PSK encryption has now been enabled and security within your wireless network is significantly higher.

Reconnecting your computer

When you click **Apply** after you set up the WPA-PSK encryption, computers with wireless connections to your Ovation will disconnect. It can take 2 to 3 minutes before your Ovation reappears on the list of available wireless networks. As soon as your computer finds your Ovation, you must reconnect manually.

For instructions on how to reestablish the wireless connection between your computer and your Ovation, please refer to the manufacturer's documentation.

Rename your network

The default Service Set Identifier (SSID) for your Ovation is **ovation**. In some operating systems, the SSID is also used as the network name. If you keep the default SSID, confusion could occur if one of your neighbors sets up a wireless network with the same name.

If you and your neighbor have disabled the security settings and you live within 150 meters of each other, your computer could accidentally connect to your neighbor's wireless network (and vice-versa).

To solve this problem, you should change the default SSID. An SSID can contain a maximum of 32 alphanumerical characters (letters or numbers) and is case sensitive. For example, NEWNAME is not the same as newname.

- Click **System Settings** then **WLAN AP**.
- Enter a new name in the **SSID** box.

- Click **Apply**.

Reconnecting your computer
When you click **Apply** after you change the SSID, computers with wireless connections to your Ovation will disconnect. It can take 2 to 3 minutes before the Ovation reappears in the list of available wireless networks. As soon as your computer finds your Ovation, it should reconnect automatically. If not, you must reconnect manually.
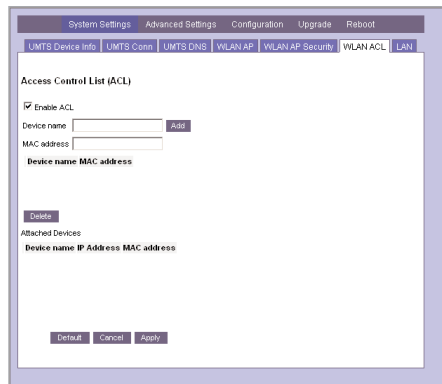
For instructions on how to reestablish the wireless connection between your computer and your Ovation, please refer to the manufacturer's documentation.
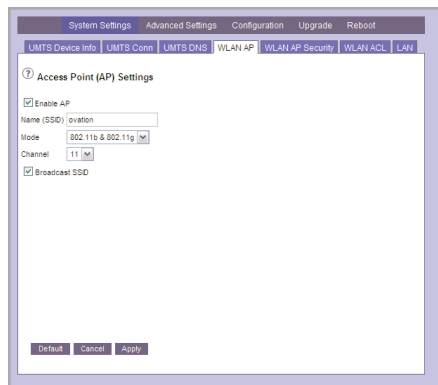
Restrict access

A common method of restricting network access is to specify the Media Access Control (MAC) address. Every network adapter is identified by its MAC address. Specifying which computers can connect to your network can limit network access to trusted computers.

Your Ovation automatically detects a list of devices that are attached to your network and their corresponding MAC addresses. Enable the access control list (ACL) to limit network access to this list of attached devices.

- Click **System Settings** then **WLAN ACL**.

- Check **Enable ACL**.

- Click **Apply**.

Hide your network

By default, your Ovation broadcasts the Service Set Identifier (SSID). In some operating systems, the SSID is referred to as the network name. This makes it easy for computers in your network to find and connect to your Ovation. It also makes it easy for computers outside of your network to find you.

Consider disabling the SSID broadcast as a final step - after you have set up all of your security settings and after all of the devices in your network are connected and tested.

After you disable the SSID broadcast, new computers you add to your wireless network might not be able to communicate with your Ovation. If this happens, enable the SSID broadcast to allow the new computers to connect wirelessly. Once the computers have connected, you can disable the SSID broadcast again.

- Click **System Settings** then **WLAN AP**.
- Uncheck **Broadcast SSID**.

- Click **Apply**.
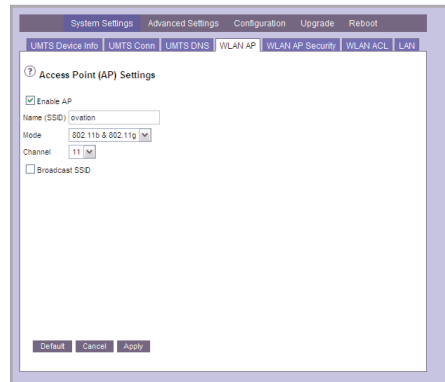
Control the traffic

A firewall blocks Internet traffic that might cause damage to the computers in your network. Before traffic is allowed in or out of your network, it has to pass through the firewall. Incoming traffic is examined to see whether it meets the conditions of incoming rules. If the conditions are met, the traffic is allowed in. Outgoing traffic is also examined and compared to outgoing rules before it is allowed out. Rules are based on Internet services, such as FTP, Telnet, and NetMeeting.

Do I have to change the default firewall rules or add new rules?
By default, all incoming traffic is blocked and all outgoing traffic is allowed. For normal household use, you should not have to add new rules or change the default rules.

What happens in case of a "Denial of Service" attack?
Some hackers choose to flood your network with more requests than it can handle. This is known as a Denial of Service (DoS) attack. While this type of attack cannot harm the computers in your network, it can slow down or stop your network operations. Your Ovation blocks these attacks automatically. You do not need to set up an incoming firewall rule.

Block content

If you have children in your household, you might want to protect them from web sites that contain inappropriate content. Using URL filtering, you can block content based on a keyword, a domain name, or domain suffix.

URL filtering does not have to apply to every computer in your network. You can allow a trusted computer in your network to access all web sites at all times.

- Click **Advanced Settings** then **Internet**.

- Click **Enable** under **URL Filter**.

- Click **Edit URL Filter List**.
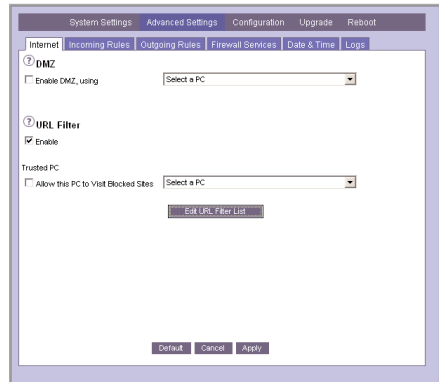
- Enter the URL to be blocked in the **Add Filter String** field.
  (e.g. www.blocksite.com).

- Click **Add**.

- Repeat the process for as many URLs as you want.

- Click **Apply**.
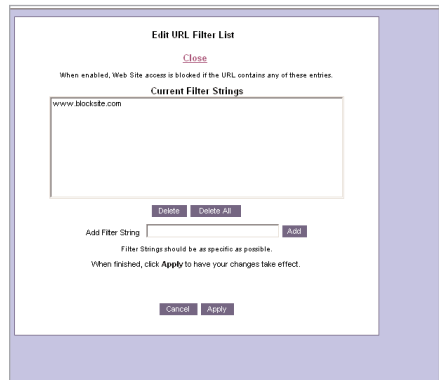
Monitor activity

Logging security events keeps you aware of potential security risks and attempted attacks. You control which events are included in the log. You can monitor attempted DoS attacks and port scans. You can keep track of logins or find out if someone in your household is trying to access a blocked URL. You can also log basic router operations, such as the startup.

- Click **Advanced Settings** then **Logs**.

- Select the logs you want to monitor.

- Click **Apply**.
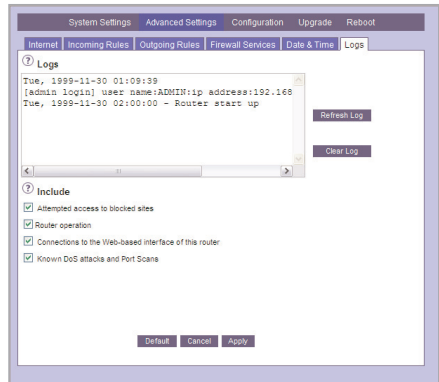
Advanced Network Settings

As a rule, you do not have to enter any other settings. The possible configurations described in this section mainly apply to network administrators. You must open the Tools to change these settings.

DMZ server

You can set up a computer in your local network to act as a DMZ server. You might want to do this if you are having problems with an Internet service. Using DMZ can help you decide if a closed port is causing your connection problem. Some online games and videoconferencing applications are not compatible with NAT. In this instance, you can use DMZ to access the application.

Is it safe?
Since a DMZ server operates outside of the natural firewall protection NAT provides, and it receives all unknown connections and data, your network is exposed to possible attacks. You should only enable DMZ when necessary.

How do I set up a DMZ server?
To set up a DMZ server, the computer must be part of your local network. If you are using DHCP for your local network, the computer should automatically display in the Select a PC list.

- Click **Advanced** Settings then **Internet**.

- Select **Enable DMZ, using**.

- Select a computer from the list.

- Click **Apply**.
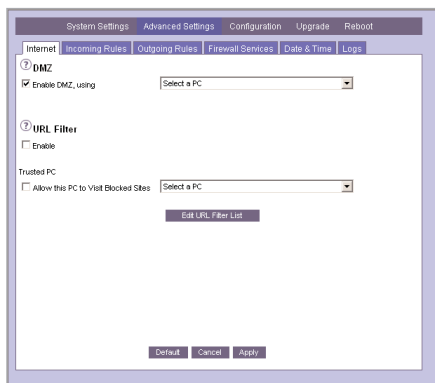
WLAN Mode

By default, your Ovation is set to "802.11b and 802.11g". This setting enables you to connect a mix of 802.11b/g compatible devices to your wireless network. You should not have to change the mode.

- Click **System Settings** then **WLAN AP**.

- Select the required mode in the **Mode** field.

- Click **Apply**.
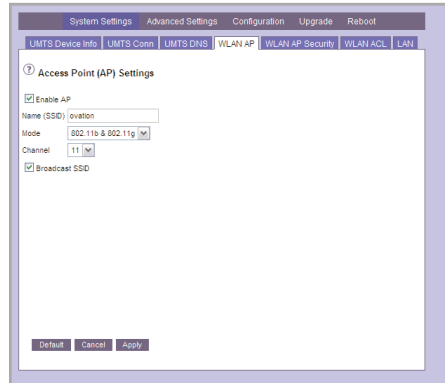
Reboot

Reboot your Ovation to resolve existing connection problems or enable new network configurations.

- Click **Reboot**.

- Click the **Reboot** button.
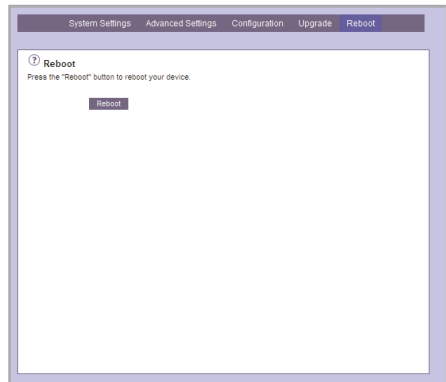
Troubleshooting

Why doesn't the Connection Manager window appear?

If the Connection Manager window does not appear, you may be using software that is blocking pop-up windows. Click the Connection Manager link on the main window.
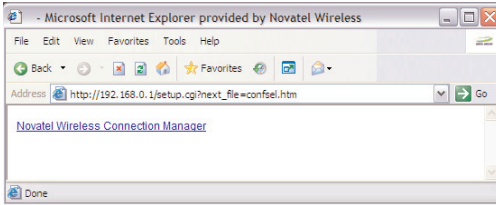
If the window still does not appear or you are not using pop-up blocking software, try one or more of the following suggestions.

Is JavaScript enabled for your browser?

Microsoft Internet Explorer 6 or later versions
- Select **Tools-Internet Options**.
- Click **Internet** on the **Security** tab.
- Click **Custom Level … **.
- under **Scripting** click **Enable**.
- Click **OK** twice.

Netscape Navigator 6.2
- Select **Edit-Settings**.
- Click **Extended**.
- Select **Enable JavaScript for Navigator**.
- Click **OK**.

Troubleshooting

Did you clear the browser cache?

Microsoft Internet Explorer 6.0 or later versions
- Select **Tools-Internet Options**.
- Click **General information** Click **Delete Files**
  under **Temporary Internet Files**.
- Click **OK**.

Netscape Navigator 6.2
- Select **Edit-Settings**.
- Double click **Extended**.
- Click **Cache**.
- Click **Empty Cache**.
- Click **OK**.

Is your Wi-Fi card installed properly? *
- Choose **Start-Control Panel**.
- Double-click the **System** icon to open the System Properties dialog.
- Click the **Hardware** tab.
- Click the **Device Manager** button.
- Double-click the **Network Adapters** icon.
- Double-click the icon for your Wi-Fi card.
- Click the **General** tab. If your Wi-Fi card is installed properly
  you should see the message "The device is working properly."

Is your computer set up to obtain IP addresses automatically? *
- Choose **Start-Settings-Network Connections**.
- Double-click the **Local Area Connection** icon.
- Click the **Properties** button.
- Select **Internet Protocol (TCP/IP)**.
- Click the **Properties** button.
- Select **Obtain an IP address automatically**.
- Select **Obtain DNS server addresses automatically**.
- Click **OK** twice.
- Restart your computer.

Is the IP address for your computer within the range of 192.168.0.2 to 192.168.0.254? *
- Choose **Start-Programs-Accessories-Command Prompt**.
- When the Command Prompt window opens, type **ipconfig** and press Enter.
- If the IP address is not within the range, restart your computer.

*   Instructions are provided for Windows XP Service Pack 2 (SP2). If you are not using Windows XP,
refer to the manufacturer's documentation for instructions.

How can I tell if I am connected?

The UMTS indicator on the LCD shows **UMTS ONLINE** when your Ovation is connected to the Internet. The LAN indicator on the LCD shows **LAN ONLINE** when your computer is properly connected to your Ovation using an Ethernet connection. The number 10 or 100 will also appear. It indicates the connection speed, either 10 Mbps or 100 Mbps. The WLAN indicator on the LCD shows **WLAN ONLINE** if the WLAN module is enabled.

Why doesn't my default home page appear?

If you entered a home page in your browser (e.g. http://www.google.com) and you wish to access it, you must either close the opened browser window and reopen it again, or open a second browser window. We recommend selecting the Ovation site (http://192.168.0.1) as your home page and saving all other pages under Favorites or Bookmarks.

How do I disconnect from the Internet?

If you want to disconnect the connection between your Ovation and the Internet, click **Disconnect** on the Connection Manager window or click the **UMTS on/off** button on the right side of your Ovation.

How do I re-open the Connection Manager window?

To re-open the Connection Manager window, type http://192.168.0.1 in the browser address bar.

Glossary

802.11b
WLAN standard. Provides a transmission speed of 11 Mbps in the 2.4 GHz band.

802.11g
WLAN standard. Provides transmission speeds of up to 54 Mbps (typically 22 Mbps) in the 2.4 GHz band. Is considered a successor of, and is compatible with, 802.11b. Enables high speed data access from up to 100 meters distance from the base station.

DHCP
Dynamic Host Configuration Protocol (DHCP). The Dynamic Host Configuration Protocol is used to configure IP addresses and applicable information dynamically. Instead of a static (fixed) IP address, DHCP clients receive their IP address from a central DHCP server.

DMZ
DeMilitarized Zone (DMZ) is a decoupled isolated partial network that is switched between the network to be protected and the unsecured network.

DNS
Domain Name System (DNS) Internet service that is used to assign IP addresses to the corresponding readable domain names and vice-versa.

Firewall
Technology in the form of hardware and/or software that controls the flow of data between a private and an unprotected network (which is LAN and Internet) or protects an internal network from attacks from the Internet.

Firmware
Preinstalled software to operate your Ovation.

FTP
File Transfer Protocol (FTP) regulates file transfers on the Internet.

Glossary

HTTP   Hypertext Transfer Protocol (HTTP); a service
                        protocol to transmit documents between servers
                        or from a server to a client. Is almost
                        only used on the Internet, especially the
                        World Wide Web.

IP address   The IP address identifies every device connected to
                        the Internet through an address that is unique
                        worldwide.

Passphrase   A passphrase is generally longer than a password
                        and may contain letters and numbers.

LAN   Local Area Network; Local computer connection
                        that has few connections to the outside world
                        or none at all.

MAC address   Abbreviation for Media Access Control; 48 bit
                        identification number of a network card that
                        generally cannot be changed shown as
                        hexadecimal numbers.

NAT   Abbreviation for Network Address Translation.
                        Method to convert (mostly private) IP addresses of
                        a network to other (mostly public) IP addresses
                        of another network.

Network adapter   Another word for Network Card. The network
                        card is the device that establishes the connection
                        between the network (wireless or wired) and the
                        computer.

Network name   Also called SSID. Service Set Identifier; network
                        name in WLAN, allows stations in the WLAN to
                        find the correct access point.

Port forwarding   Is a technology to enable implementation of ports
                        on IP addresses in NAT networks
                        (Network Address Translation).

Port

Describes an interface between the operating system, applications, and Internet.

SMTP

E-mail programs use Simple Mail Transfer Protocol (SMTP) to transmit data to the provider's mail server It then forwards the e-mail via intermediate stations to the recipient's mail server.

SSID

Service Set Identifier; network name in WLAN, allows stations in the WLAN to find the correct access point.

TCP/IP

Transmission Control Protocol / Internet Protocol; this is the transport protocol on which the data transmission on the Internet is based.

WAN

A Wide Area Network is a network mainly working across great distances.

WEP

Wired Equivalent Privacy; Describes a 128 bit encryption process used for wireless LANs.

WLAN

Wireless Local Area Network is a remote technology for wireless networking.

WPA-PSK

WiFi Protected Access is an encryption method for a WLAN.

Specifications

3G/UMTS	2100 MHz UMTS
LAN	10BaseT/100BaseT LAN
WLAN	802.11 b/g WLAN
Speed	Up to 384 Kbps
Security	128 bit WEP Encryption Port and URL Filter DMZ Support
Dimensions	265 x 154 x 37 (H x W x D in mm)
Weight	754g with stand
Color Display	LCD, Monochrome 128 x 64 Pixel Lighting can be switched on and off
Display	UMTS • LAN • WLAN Status Time (Hours/Minutes) Signal strength
Operating Environment	Operating Temperature 0°C to 50°C Humidity Range 10% to 80% non-condensing
User Interface	Device configuration with local browser on computer (no additional installation software required)
Power Input	100 to 230 volts 50 to 60 Hz
Power Output	5Vdc @ 2.8 Amps